

COUNCIL MEMBERS

Glen Gaby
1st Ward

Lawrence Ballah
2nd Ward

Rick Ryfa
3rd Ward

Patricia Schaadt
4th Ward

Stan Dobosz
5th Ward



CLERK-TREASURER

George N. Jerome

george.jerome@griffith.in.gov

Phone (219) 924-7500

Fax (219) 922-3072

Town of Griffith

111 N. Broad St., Griffith, IN. 46319-2294

RECEIVED
www.griffith.in.gov

August 14, 2012

AUG 15 2012

Water Enforcement and Compliance Assurance Branch (WC-145) WATER ENFORCEMENT & COMPLIANCE
U.S. Environmental Protection Agency ASSURANCE BRANCH, EPA, REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590
Attention: Jennifer Cheever, P.E., Environmental Engineer

RE: Town of Griffith, Indiana – Order for Compliance
Docket No. V-W-12-AO-08

Dear Ms. Cheever,

In accordance with Order paragraph 22, page 5 under the section titled "Compliance Requirements", attached you will find a memorandum pertaining to the Alternatives Analysis to eliminate Sanitary Sewer Overflows from the Town of Griffith Cline Avenue Equalization Basin to the best extent practicable. The Alternatives Analysis includes a discussion on possible alternatives, selection of the recommended alternative(s), estimated costs and an implementation schedule for the selected alternative(s).

The Town of Griffith would welcome meeting with you to review the attached Alternatives Analysis, at your convenience.

If you have any questions or need any further information, please do not hesitate to call.

Sincerely,

TOWN OF GRIFFITH

Glen Gaby
Town Council President

Water Enforcement and Compliance Assurance Branch (WC-15J)
U.S. Environmental Protection Agency
August 14, 2012

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Glen Gaby

GG/cas

Encls.

c: George Jerome
Rick Konopasek
Robert Schwerd
Dennis Zebell, P.E.



MEMORANDUM

August 14, 2012

TO: Jennifer Cheever, P.E., Environmental Engineer
U.S. EPA Region 5

FROM: Town of Griffith, Indiana

RE: Alternatives Analysis – Sanitary Sewer Overflows (SSO's)
Order for Compliance – Docket No. V-W-12-AO-08

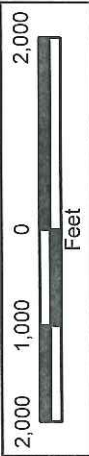
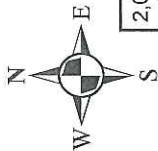
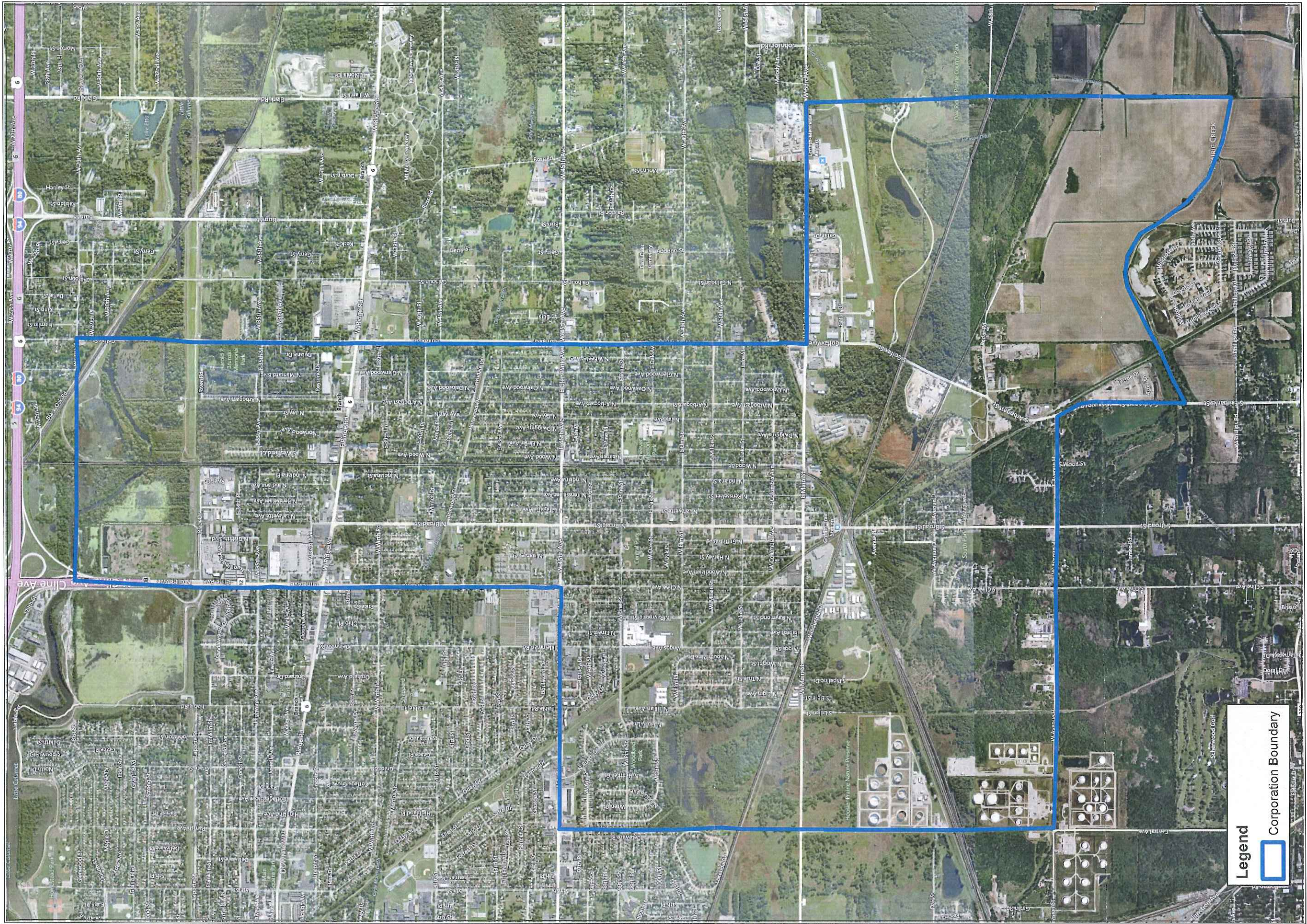
This Memorandum will summarize the Alternatives Analysis prepared by the Town of Griffith as requested in paragraph 22 (page 5) of the Order for Compliance (see Attachment A) referenced above. The purpose of the Alternatives Analysis is to review options that the Town has to eliminate SSO's from the Cline Avenue Equalization Basin, to the best extent practicable. The following alternatives have been reviewed:

- Continuation of Inflow/Infiltration Reduction
- Increase Contract Capacity with the Hammond Sanitary District (HSD)
- Expansion of the Existing Equalization Basin
- Construct a Wastewater Treatment Plant

1. CONTINUATION OF INFLOW/INFILTRATION REDUCTION

An aerial map of the Town of Griffith is shown in Figure 1. The Town has an approximate area of 7.4 square miles. About 15 years ago, the Town of Griffith began a very aggressive inflow/infiltration reduction program which included purchasing their own cleaning and televising equipment, hiring personnel to set up a full time inflow/infiltration reduction team, and updating their sanitary and storm sewer maps. Over a several year period the Town cleaned and televised all of the sanitary and storm sewers, performed smoke testing, made repairs to any damaged sewers, manholes, catch basins, etc. that were found, disconnected any cross-connections found between storm and sanitary sewers, updated the sanitary and storm sewer maps and began to disconnect sump pumps from the sanitary sewers and reconnect to storm sewer lines. The Town is committed to continuing to implement measures to reduce infiltration and inflow in the sanitary sewer system.

A reduced size version of the Town of Griffith sanitary sewer system map can be seen in Figure 2. All of the sanitary sewage in the Town flows to the north and eventually to the Cline Avenue Pump Station. The sewage is then pumped north of the I-80/94 interchange and discharges into the City of Hammond sanitary sewer system for conveyance to the HSD treatment facility.



Town of Griffith, Indiana
Corporation Boundary

Bing Maps Aerial Photography - Current

Figure 1

201207.00

July, 2012



Jennifer Cheever, P.E.
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Page 4

Over the years the Town has made tremendous progress in eliminating inflow and infiltration from their sanitary sewer system; however, the flows at the Cline Avenue Pump Station still increase significantly during major rain events. The reduction of inflow/infiltration will continue to be a top priority for the Town of Griffith; however, history indicates that this will not resolve the SSO issue on its own.

2. INCREASE CONTRACT CAPACITY WITH THE HAMMOND SANITARY DISTRICT

Table 1 summarizes the SSO events that have occurred in the Town of Griffith since the new Pump Station and Equalization Basin was put into service in October of 1997. The summary indicates that there were seven (7) SSO events between June, 2000 and January, 2008. On May 30, 2008 the Town of Griffith was told that they could no longer pump more than 5.5 million gallons per day (MGD) to the HSD. Since that time there have been ten (10) SSO events.

The Sewage Collection and Treatment Agreement between the Hammond Sanitary District and the Town of Griffith, signed in May of 1994, authorized the Town to convey sewage to the District at a rate of 4.0 MGD. This Agreement was modified in June of 1995 to increase the rate to 5.5 MGD. The Town of Griffith pumping station has the ability to pump approximately 8.0 MGD to the HSD if all four (4) sanitary pumps are operating. From the startup date of the new pump station until May, 30, 2008 the Town of Griffith was allowed to pump up to 8.0 MGD with the understanding that this only occurred during significant rain events. During 2006 and 2007 there were some very severe rain events that caused significant surcharging of the sanitary sewer lines in Hammond. As a result, the HSD took a hard stance with the customer communities of Griffith, Highland and Whiting and installed devices to throttle the flow from these communities to their contract capacity. They also told the Town of Griffith that their consultant had performed extensive studies of the Hammond sewer system and determined that there was no cost effective method to improve the infrastructure to allow the Town to pump more than their contract capacity.

The Town of Griffith has recently made several attempts to meet with personnel from the Hammond Sanitary District to determine if there were measures that could be taken jointly to help each other with the overflow issues; however, the District will not return phone calls, letters or emails from the Town. Due to the lack of cooperation in the past and the directive that the Town of Griffith will not be allowed to exceed their contract capacity, the Town is moving forward with solutions on their own.

3. EXPANSION OF THE EXISTING EQUALIZATION BASIN

As previously mentioned, the Town has had seventeen (17) bypass pumping events since the pump station and equalization basin was put in service in October of 1997. After reviewing the rainfall data in Table 1 it can be seen that there were several extreme rain events during this time period. Although the Town intends to do everything it can to prevent all SSO's, there will certainly be extreme rain/weather events in the future that may result in exceeding the storage capacity of an equalization basin expansion that could reasonably be undertaken by the Town.



TABLE 1
Town of Griffith
Events Requiring Bypass Pumping

NO.	DATE	IDEM INCIDENT NO.	QUANTITY PUMPED TO SWAMP	DATE OF LETTER TO EPA/IDEM	PUMPING TO SWAMP			RAINFALL	GROUND ALREADY SATURATED
1	6/25/00		4.3 MG	6/30/00	2:20 P.M. 6/25/00	to	2:00 P.M. 6/26/00	(5.3" - 6/20 to 6/24)	Yes
2	5/12/02	2002-05-163	8.2 MG	5/16/02	1:30 P.M. 5/12/02	to	1:00 P.M. 5/14/02	(5.4" - 5/5 to 5/13)	Yes
3	1/13/05		5.6 MG	1/18/05	6:00 P.M. 1/13/05	to	6:00 P.M. 1/14/05	4.2" Rain 10.5" Snow 1/1 to 1/13	Yes
4	4/17/06		3.5 MG	4/21/06	8:00 P.M. 4/17/06	to	10:00 A.M. 4/18/06	(4.5" - 4/16)	No
5	9/14/06	2006-09-113	9.0 MG	9/19/06	11:30 P.M. 9/13/06	to	3:00 P.M. 9/16/06	(9.3" - 9/10 to 9/13) (7.2" - 9/13)	Yes
6	8/20/07	2007-08-182	21.9 MG	8/30/07	4:45 P.M. 8/20/07	to	2:00 P.M. 8/27/07	(14.2" - 8/4 to 8/25) (11.9" - 8/14 to 8/25) (3.3" - 8/19)	Yes
7	1/08/08	2008-01-065	5.1 MG	1/11/08	4:00 P.M. 1/08/08	to	1:00 P.M. 1/09/08	(3.2" - 1/7) On Snow Covered/ Frozen Ground	-----
8	8/05/08		1.4 MG	8/08/08	6:00 A.M. 8/05/08	to	11:30 A.M. 8/05/08	(4" - 8/4) HSD Power Outage	-----
9	9/13/08	2008-09-101	59.4 MG	9/18/08 10/07/08	9/13/08	to	12:00 A.M. 9/23/08	(15" - 9/4 to 9/14) (10" - 9/12 to 9/14)	Yes
10	12/27/08		6.9 MG	12/31/08	5:45 P.M. 12/27/08	to	10:00 P.M. 12/28/08	(2" - 12/26 to 12/27) On Snow Covered/ Frozen Ground	-----
11	3/08/09	2009-03-042	18.2 MG	3/13/09 3/17/09	1:30 P.M. 3/08/09	to	3:00 A.M. 3/13/09	(5" - 3/7 to 3/10) Frozen Ground	Yes
12	4/06/09		4.6 MG	4/10/09	7:00 P.M. 4/06/09	to	7:00 P.M. 4/07/09	(1.8" - 4/2 to 4/5) On Frozen/Snow Covered Ground	-----
13	10/30/09		6.2 MG	11/03/09	4:40 P.M. 10/30/09	to	9:00 P.M. 10/31/09	9.5" October, 2011 (1.7" - 10/29)	Yes
14	6/23/10		4.1 MG	6/28/10	11:30 P.M. 6/23/10	to	2:00 P.M. 6/24/10	(5" - 6/18 to 6/23) (2.7" - 6/23)	Yes
15	4/26/11		9.9 MG	5/03/11	7:45 P.M. 4/26/11	to	1:30 P.M. 4/30/11	7" April, 2011 (5" - 4/17 to 4/27)	Yes
16	5/27/11		7.26 MG	6/02/11	1:15 P.M. 5/27/11	to	2:00 A.M. 5/31/11	(4" - 5/22 to 5/29) (2.75" - 5/25)	Yes
17	6/10/11		4.68 MG	6/10/11 6/14/11	11:50 A.M. 6/10/2011	to	5:00 A.M. 6/11/2011	(4" - 5/22 to 5/29) (2.8" - 6/8 to 6/9)	Yes

*

* May 30, 2008 - Griffith cut back to 5.5 MGD Maximum Pumping Capacity due to request from HSD.

Note: The Town of Griffith Pump Station and Equalization Basin was put in service in October, 1997.

Lawson-Fisher Associates P.C.
Project File No. 201207.00



Jennifer Cheever, P.E.
August 14, 2012
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Upon further review of the SSO events listed in Table 1 and the amount of diluted sewage that was pumped to the swamp adjacent to the equalization basin during each event, it has been determined that a 10 million gallon expansion of the existing basin would have prevented all but three (3) of the seventeen (17) SSO events that have occurred over the past fifteen (15) years. It should also be noted that some of the extreme weather events that occurred during the time period from September, 2006 to September, 2008 were classified as 150 to 600 year recurrence interval events.

- The bypass pumping event of September 14, 2006 occurred after 7 to 8 inches of rain fell with most of it occurring during a three (3) hour period.
- On August 20, 2007 the Town needed to bypass pump after several days of heavy rainfall. The Town records indicate that 14.2 inches of rain fell from August 4 to August 25.
- The SSO event of September 13, 2008 occurred after sheets of rain fell for several days with recorded rainfall of 15 inches from September 4 to September 14 (10 inches of which fell in three days).

Attachment B includes data on the August, 2007 and September, 2008 rain events based on rain gage data from four different locations within the Town of Griffith. We have also included 100 year recurrence interval maps for different duration storm events as obtained from the National Weather Service.

A ten (10) million gallon expansion of the existing basin would increase the total storage capacity from approximately 4.6 million gallons to 14.6 million gallons. The proposed location of the basin expansion is shown in Figure 3. Photographs of the proposed site location are included in Attachment C. Based on the best information available at this time and the fact that the Town is taking steps to decrease the inflow/infiltration (I/I) into their sanitary sewer system, it is our feeling that a 14.6 million gallon storage facility would result in bypass pumping only during weather events that can truly be considered an "Act of God". A preliminary estimate of the construction cost of the proposed ten (10) million gallon basin expansion is \$11,613,000 (see Table 2). The total project cost including property acquisition, geotechnical evaluations, survey, wetland review, permitting, design and services during construction is estimated to be \$13,383,000 (see Table 2). The final sizing and cost of the facility would be determined in the final design phase.

An implementation schedule for this alternative has been prepared based on past experience and the preliminary engineering information available at this time. The proposed schedule indicates a total project duration of 26 months (see Figure 4) from Notice to Proceed to full operational status of the equalization basin expansion.





TABLE 2
Preliminary Engineer's Estimate
Town of Griffith
Equalization Basin Expansion

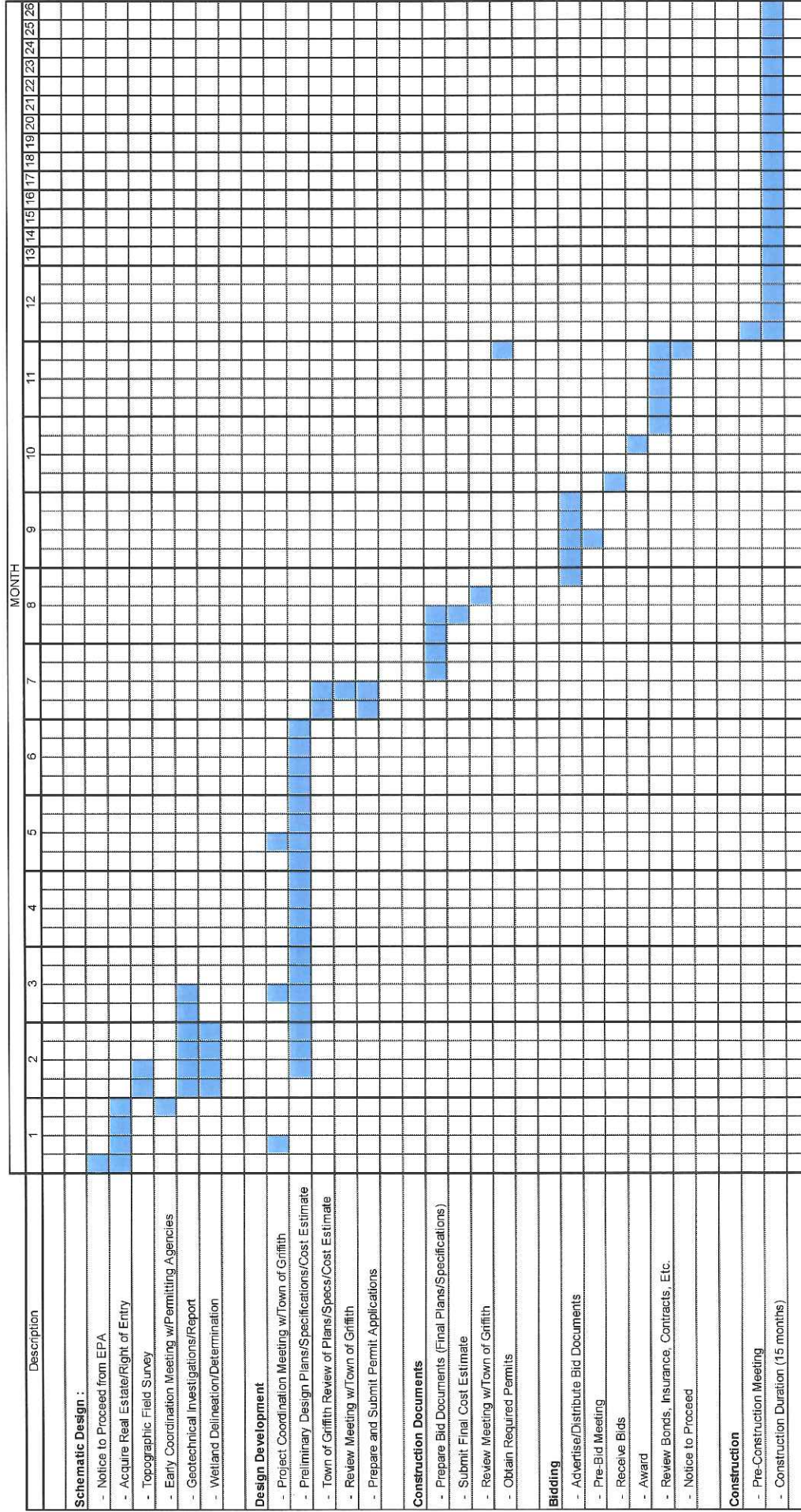
ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
				Dollars	Dollars
1	Construction Engineering	1	LS	\$150,000.00	\$150,000.00
2	Material Approval and System Testing - QA/QC	1	LS	\$160,000.00	\$160,000.00
3	Mobilization and Demobilization	1	LS	\$520,000.00	\$520,000.00
4	Clearing and Grubbing	1	LS	\$85,000.00	\$85,000.00
5	Structure Excavation	1	LS	\$580,000.00	\$580,000.00
6	Equalization Basin Site Work	1	LS	\$350,000.00	\$350,000.00
7	Dewatering and Protection of Existing Structures	1	LS	\$750,000.00	\$750,000.00
8	Furnish and Install Foundation Piling	50,300	LF	\$40.00	\$2,012,000.00
9	CIP Concrete - Base Slab	5,600	CY	\$400.00	\$2,240,000.00
10	CIP Concrete - Walls	1,700	CY	\$600.00	\$1,020,000.00
11	Reinforcing Steel	622,000	LB	\$1.10	\$684,200.00
12	Misc. Concrete (Exp. Jts, Waterstop, Wiers, etc.)	1	LS	\$250,000.00	\$250,000.00
13	Sanitary Pump/Piping to Equalization Basin	1	LS	\$300,000.00	\$300,000.00
14	Bypass Pumping	1	LS	\$40,000.00	\$40,000.00
15	FRP Walkways/Railing	1	LS	\$350,000.00	\$350,000.00
16	Automated Sluice Gate	1	LS	\$175,000.00	\$175,000.00
17	Basin Cleaning System	1	LS	\$250,000.00	\$250,000.00
18	Instrumentation	1	LS	\$60,000.00	\$60,000.00
19	Electrical	1	LS	\$50,000.00	\$50,000.00
20	Misc. Basin Construction	1	LS	\$70,000.00	\$70,000.00
21	Videotape Record	1	LS	\$2,000.00	\$2,000.00
TOTAL AMOUNT:					\$10,098,200.00
Contingency @ 15%					\$1,514,730.00
TOTAL ESTIMATED CONSTRUCTION COST					\$11,612,930.00
REAL ESTATE COSTS					\$300,000.00
GEOTECHNICAL INVESTIGATIONS					\$65,000.00
TOPOGRAPHIC SURVEY					\$35,000.00
WETLAND DELINEATION/DETERMINATION					\$15,000.00
PERMITTING SERVICES					\$45,000.00
DESIGN/ENGINEERING SERVICES					\$690,000.00
CONSTRUCTION ENGINEERING/INSPECTION					\$390,000.00
CONSTRUCTION ADMINISTRATION					\$230,000.00
TOTAL ESTIMATED PROJECT COST					\$13,382,930.00

Note: Costs associated with environmental studies, wetland mitigation, and compensatory storage have not been included in the above figures.



FIGURE 4

Town of Griffith - Equalization Basin Expansion Project Schedule



Notes:
 1. Schedule is based on number of months after approval and a Notice to Proceed is received from EPA.
 2. Construction duration is based on 15 months



Jennifer Cheever, P.E.
August 14, 2012
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4. CONSTRUCT A WASTEWATER TREATMENT PLANT

The Town of Griffith currently sends all of their wastewater to the Hammond Sanitary District (HSD) Wastewater Treatment Plant. A Sewage Collection and Treatment Agreement was entered into with the HSD in May of 1994. This agreement is effective until December 31, 2018; however, the customer communities must give written notice of their intent to extend the contract for another 25 years by December 31, 2015.

The Town of Griffith and the Town of Highland initially explored the possibility of developing a joint wastewater treatment facility. A Conceptual Planning Report was prepared by Lawson-Fisher Associates and Malcolm-Pirnie to assist the Towns of Griffith and Highland in comparing the costs to continue sending their wastewater to the Hammond Sanitary District or constructing and maintaining a joint Griffith/Highland treatment facility. After reviewing the report, Highland has decided to not pursue this option further; however, the Town of Griffith is remaining open to the idea. The proposed location of the facility is shown in Figure 5.

Some of the reasons a new treatment plant is being considered are as follows:

- The Town of Griffith is limited by HSD to a contract capacity of 5.5 MGD. Prior to May 30, 2008 the Town of Griffith was allowed to exceed their contract capacity and could pump up to approximately 8.0 MGD with all sanitary pumps running in the Cline Avenue Pump Station.
- The Town of Griffith has a 4.6 million gallon equalization basin near their Cline Avenue Pump Station. Additional storage is needed to eliminate SSO's to the best extent practicable.
- The HSD has indicated that there is no additional capacity available for the Town of Griffith and a flow restrictor valve has been installed on the discharge line to allow HSD to restrict the flow to the contract capacity.
- Despite ongoing attempts to reduce inflow and infiltration in the Town, the flow rates still rise considerably during significant rain events.
- The HSD has made it clear that sewage treatment rates will rise substantially in the future for the customer communities. They have hired a Consultant to review and revise the Cost-of-Service Study.
- It will be very difficult for the Town to agree to a 25 year contract extension with the HSD when there is no communication between the two parties.

The wastewater treatment plant option would resolve all of the issues discussed above; however, the Town realizes that there are many obstacles to overcome in order for this option to become a reality, including the anti-degradation process, pollutant discharge limitations, restrictive mercury effluent limitation and project cost considerations.





Jennifer Cheever, P.E.
August 14, 2012
Page 12

An addendum to the March, 2012 Conceptual Planning Report for the Proposed Griffith/Highland Wastewater Treatment Plant was prepared by Malcolm Pirnie in July, 2012 for a Griffith only plant. A copy of the additional information is included in Attachment D. The July, 2012 report indicates that the plant would be designed for an average flow rate of 3.5 MGD and a peak flow rate of 10.0 MGD. The 3.5 MGD average flow rate is approximately 25 percent above the average flow rate from 2006 to 2011 which allows additional capacity for future population growth, commercial and industrial growth and septic tank conversion.

Based upon experience with similar plants of similar size, Malcolm Pirnie has estimated a construction cost range of \$10 to \$14 per gallon for a total construction cost range of \$35,000,000 to \$49,000,000. The total project cost would include real estate, design, inspection, administration, permits, geotechnical investigations, etc. The estimated range for the total capital cost would be from \$47,000,000 to \$65,000,000. Operation and Maintenance costs, based upon past experience, would range from \$2.00 to \$2.50 per thousand gallons treated for a range of annual O&M costs from \$2.6 to \$3.2 million dollars.

The Malcolm Pirnie Report in Attachment D indicates a 235% to 345% increase in revenue requirements for a new plant. This does not include the cost of equalization storage facilities as they are expected to be constructed on a separate project. As previously stated, the Hammond Sanitary District has indicated there will be significant cost increases to be passed on to the Town of Griffith in the near future for capital cost projects (storage) and higher user rates. These future increases are unknown at this time; however, it is expected that a significant increase in revenue requirements will also be necessary if the Town decides not to pursue their own treatment facility.

An implementation schedule for the treatment plant alternative is included in Attachment D. The schedule indicates that the total project duration from the date the Town decides to move forward to the date in which we achieve full operational status of the new wastewater treatment facility is approximately 62 months (5.2 years). Griffith's contract with the Hammond Sanitary District expires on December 31, 2018 (6.4 years).

RECOMMENDED ALTERNATIVE

The Town of Griffith is proposing to move forward with Alternative 1 (Continuation of Inflow/Infiltration Reduction) and Alternative 3 (Equalization Basin Expansion to 14.6 MG of total storage) to alleviate issues pertaining to SSO's. The Town is also planning to pursue Alternative 4 (Wastewater Treatment Plant) until such time that it is determined that this option is no longer feasible. The Equalization Basin Facility would be incorporated into the proposed treatment plant option at a later date if this option moves forward.

DAZ/cas
Encls.

ATTACHMENT A

**U.S. EPA
ORDER FOR COMPLIANCE**

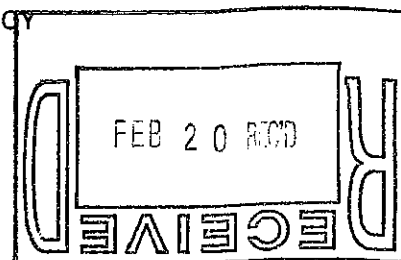
TOWN OF GRIFFITH

DOCKET NO. V-W-12-AO-08



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

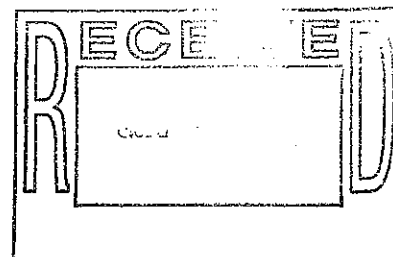
FEB 10 2012



REPLY TO THE ATTENTION OF:

WC-15J

CERTIFIED MAIL 7009 1680 0000 7672 4524
RETURN RECEIPT REQUESTED



Mr. Rick Konopasek
Director of Public Works
111 North Broad Street
Griffith, Indiana 46319-2294

Subject: Town of Griffith, Indiana Order for Compliance and
Request for Information Pursuant to 33 U.S.C. §§ 1318(a) and 1319(a)(3)
Docket No. V-W-12-AO- 08

Dear Mr. Konopasek:

Protecting water quality is a high priority of the U. S. Environmental Protection Agency. Pollutants such as pathogens discharged to waterways from sanitary sewer overflows contribute to poor water quality and impairment of uses of those waterways.

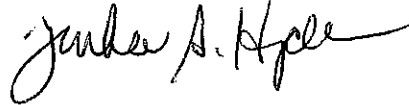
EPA is issuing this Administrative Order (Order) to the Town of Griffith (Town), pursuant to Sections 308(a) and 309(a) of the Clean Water Act (CWA), 33 U.S.C. §§ 1318(a) and 1319(a). In the Order, EPA asserts that the Town has violated the CWA and seeks to bring the Town back into compliance with the CWA.

In April of 2010, EPA received a response to the Wet Weather/Sanitary Sewer System Information Request sent to the Town. Information gathered during the review of the response and in EPA's June 2011 inspection demonstrates that the Town has discharged untreated sanitary waste in the form of sanitary sewer overflows on numerous occasions to waters of the United States, in violation of the CWA. This Order requires you to immediately cease all sanitary sewer discharges and take any necessary action to comply with the CWA.

Please send your written responses to the addresses specified in the Order with the certification language provided in Paragraph 27 of the Order. Please note that within five days of this Order's receipt, the Town of Griffith may request a conference with EPA to discuss the terms of the Order or any other information you feel we should consider. Paragraph 26 of the Order includes details regarding how and when to request a conference.

If you have any questions or concerns, please contact Jennifer Jungmann of my staff at (312) 353-4627 or jungmann.jennifer@epa.gov, or your legal counsel may contact Robert Guenther, Associate Regional Counsel, at (312) 886-0566 or guenther.robert@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Tinka G. Hyde", with a stylized, flowing script.

Tinka G. Hyde
Director, Water Division

Enclosure

cc: Mark Stanifer, IDEM
Paul Higginbotham, IDEM

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)	DOCKET NO.: V-W-12-AO- 58
)	
TOWN OF GRIFFITH, INDIANA)	PROCEEDING UNDER
)	SECTIONS 308(a) AND 309(a)
RESPONDENT.)	OF THE CLEAN WATER ACT
_____)	

ORDER

STATUTORY AUTHORITY

1. The Director of the Water Division, U.S. Environmental Protection Agency (EPA) Region 5, is making the following **FINDINGS** and is issuing the following **ORDER** pursuant to the authority of the Administrator of the EPA under Sections 308(a) and 309(a) of the Clean Water Act (CWA), 33 U.S.C. §§ 1318(a) & 1319(a). The Administrator delegated this authority to the Regional Administrator, EPA, Region 5, who then redelegated the authority to the Director of the Water Division, EPA, Region 5.
2. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants to the waters of the United States by any person except in compliance with a permit issued under the authority of the CWA.
3. Section 502(12) of the CWA, 33 U.S.C. § 1362(12), defines "discharge of a pollutant" to mean, among other things, "any addition of any pollutant to navigable waters from any point source."
4. Section 309(a)(3) of the CWA, 33 U.S.C. § 1319(a)(3), states that whenever the Administrator finds a person in violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a), she may issue an order requiring that person to comply with the provisions of the CWA.
5. Section 308(a) of the CWA, 33 U.S.C. § 1318(a), authorizes the Administrator to require the owner or operator of any point source to establish and maintain records, make reports, install, use and maintain monitoring equipment, sample effluent and provide any other information she may reasonably require to carry out the objectives of the CWA.

Request response. Dates and locations of SSOs are indicated in Attachment A to this Order. All SSOs documented were the result of bypass pumping from an equalization basin to the swamp just north of the Cline Avenue Pump Station.

15. The discharges listed in the preceding paragraph constitute discharges of pollutants from point sources to the waters of the United States without a permit issue under section 402 of the CWA, 42 U.S.C § 1342, and consequently violate section 301(a) of the CWA, 33 U.S.C. § 1311(a).

COMPLIANCE REQUIREMENTS

16. **BASED ON THE FOREGOING FINDINGS** and the authority vested in the undersigned Director, Water Division, **IT IS HEREBY ORDERED** in accordance with sections 308(a) and 309(a)(3) of the CWA, 33 U.S.C. §§ 1318(a) & 1319(a)(3), that Respondent complete the actions detailed in the following paragraphs.
17. Within 14 calendar days of receipt of this Order, Respondent must submit a written certification of its intent to comply with this Order.
18. Respondent must continuously manage, operate, and maintain all parts of its sanitary sewer system in accordance with the CWA. This includes, but is not limited to:
 - a. Providing adequate capacity to convey base flows and peak flows for all parts of the sewer system;
 - b. Eliminating all known SSOs and continuing to monitor for the existence of new SSOs for all parts of the sewer system;
 - c. Taking all feasible steps to stop SSOs and to mitigate the impact of SSOs from the sewer system; and
 - d. Providing notification to all parties with a reasonable potential for exposure to pollutants associated with any overflow event.
19. Within 14 calendar days of receipt of this Order, Respondent must implement a procedure to report all SSOs from its sewers. This procedure must include:
 - a. Verbal notification to the Lake County Health Department (1-219-755-3655) within one hour of learning of the SSO. Verbal notification must include location of the SSO, the receiving water, if any, and an estimate of the volume of the SSO.
 - b. A written report to the Indiana Department of Environmental Management (IDEM) by fax at 1-317-232-8637 or by e-mail at

- c. Procedures and an implementation plan to ensure that personnel are aware of, trained on, and follow the Overflow Emergency Response Plan;
 - d. Procedures and an implementation plan for emergency operations; and
 - e. A public notification plan for SSO events through the local news media, internet postings, billing inserts, or other means, including signs or barricades to restrict access to areas potentially impacted by SSOs.
- 21. Within 30 calendar days of approval by EPA, Respondent must implement the approved Overflow Emergency Response Plan.
- 22. Within 180 calendar days of receipt of this Order, Respondent must perform an alternatives analysis of infrastructure improvements to eliminate SSOs from the Cline Avenue equalization basin and must submit to EPA a report documenting the findings and recommendations from the alternatives analysis. This analysis must include, at a minimum:
 - a. An engineering analysis of proposed alternatives to eliminate SSOs from the Cline Avenue equalization basin;
 - b. Cost estimation information for each evaluated alternative; and
 - c. The recommended alternative for eliminating SSOs from the Cline Avenue equalization basin and an implementation schedule for the construction and achievement of full operational status of the recommended alternative.
- 23. If EPA, in consultation with IDEM, determines that the alternatives analysis or its included implementation schedule is unacceptable, EPA will notify Respondent and provide corrective comments as appropriate. Respondent must make the necessary revisions, incorporating EPA's comments, within 30 calendar days of the date of the notification from EPA.
- 24. Within 30 calendar days of EPA's approval of the alternatives analysis, Respondent must begin implementing the recommendations of the analysis on the schedule contained in the approved analysis. This Order will incorporate the implementation schedule after approved by EPA.
- 25. Commencing for the calendar year 2012, Respondent will prepare annual reports for submission to EPA. The annual report will convey the following information:
 - a. Respondent's progress on the projects described in the alternatives analysis implementation schedule, including specific references to the projects in that

28. Should the signatory find that any portion of its response is false or incorrect, Respondent must notify EPA Region 5 immediately. Knowing submittal of false information to EPA in response to this request may subject you to criminal prosecution under section 309(c) of the CWA, 33 U.S.C. § 1319(c), as well as 18 U.S.C. §§ 1001 and 1341.
29. Pursuant to 40 C.F.R. part 2, subpart B, Respondent is entitled to assert a claim of business confidentiality regarding any portion of the information submitted in response to this Order, except effluent data, as defined at 40 C.F.R. § 2.302(a)(2). If Respondent fails to assert a claim of business confidentiality, EPA may make all submitted information available to the public without further notice. Information subject to a claim of business confidentiality is available to the public only to the extent provided in 40 C.F.R. part 2, subpart B.
30. This request is not subject to the Paperwork Reduction Act, 44 U.S.C. §§ 3501-3520, because it seeks collection of information by an Agency in an enforcement action or investigation from specific individuals or entities.
31. Any information submitted in response to this Order may be used by EPA in support of an administrative, civil, or criminal action against Respondent. Respondent's failure to fully comply with this Order may subject Respondent to an enforcement action under section 309 of the CWA, 33 U.S.C. § 1319. The CWA includes provisions for administrative penalties, for civil injunctive relief and penalties, and for criminal sanctions for violations of the CWA.
32. Compliance with this Order does not restrict EPA's authority to enforce section 301(a), 33 U.S.C. § 1311(a), or any other section of the CWA, nor does it limit EPA's authority to seek appropriate relief, including penalties under section 309 of the CWA, 33 U.S.C. § 1319, for the violations cited in this order, any other violations of the CWA, or to enforce this Order.

CERTIFICATION OF COMPLETION

33. After Respondent concludes that it has complied with all requirements of this Order, Respondent may submit to EPA a written certification of completion describing the actions taken to comply with the requirements of this Order.

ATTACHMENT A. SSO occurrences between 4/17/2006 and 6/10/2011

Violation number	Date	Sanitary Sewer Overflow Location	Receiving Water
1	4/17/2006	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
2	9/14/2006	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
3	8/20/2007	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
4	1/8/2008	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
5	8/5/2008	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
6	9/13/2008	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
7	12/27/2008	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
8	3/8/2009	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
9	4/6/2009	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
10	10/30/2009	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
11*	6/23/2010	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
12*	4/26/2011	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
13*	5/27/2011	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station
14*	6/10/2011	Bypass pumping from equalization basin	Swamp north of Cline Avenue Pump Station

*SSO reported to US EPA in August 15, 2011 inspection.

Attachment

AUTHORITY AND CONFIDENTIALITY PROVISIONS

Authority

Information requests are made under authority provided by Section 308 of the Clean Water Act, 33 U.S.C. 1318. Section 308 provides that: "Whenever required to carry out the objective of this Act, ...the Administrator shall require the owner or operator of any point sources to (i) establish and maintain such records, (ii) make such reports, (iii) install, use and maintain such monitoring equipment and methods (including where appropriate, biological monitoring methods), (iv) sample such effluent... and (v) provide such other information as he may reasonably require; and the Administrator or his authorized representative, upon presentation of his credentials, shall have a right of entry to...any premises in which an effluent source is located or in which any records...are located, and may at reasonable times have access to and copy any records...and sample any effluents..."

Please be advised that the submission of false statements is subject to federal prosecution under 18 U.S.C. §1001 and that this or any other failure to comply with the requirements of Section 308 as requested by U.S. EPA may result in enforcement action under the authority of Section 309 of the Clean Water Act, which provides for specified civil and/or criminal penalties.

Confidentiality

U.S. EPA regulations concerning confidentiality and treatment of business information are contained in 40 CFR Part 2, Subpart B. Information may not be withheld from the Administrator or his authorized representative because it is viewed as confidential. However, when requested to do so, the Administrator is required to consider information to be confidential and to treat it accordingly, if disclosure would divulge methods or processes entitled to protection as trade secrets (33 U.S.C. §1318(b) and 18 U.S.C. §1905), except that effluent data (as defined in 40 CFR §2.302(a)(2)) may not be considered by U.S. EPA as confidential.

The regulations provide that one may assert a business confidentiality claim covering part or all of any trade secret information furnished to U.S. EPA at the time such information is provided to the Agency. The manner of asserting such claims is specified in 40 CFR §2.203(b). In the event that a request is made for release of information covered by such claim of confidentiality or the Agency otherwise decides to make determination as to whether or not such information is entitled to such confidential treatment, notice will be provided to the claimant prior to any release of the information. However, if no claim of confidentiality is made when information is furnished to U.S. EPA, any information submitted to the Agency may be made available to the public without prior notice.

Note: This information request is not subject to the approval requirements of the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501 et seq.

ATTACHMENT B

**RAINFALL AND AVERAGE
RECURRENCE INTERVAL DATA**

8/20/2007 Event: 21.9 MG Pumped to Swamp

Pumping from 8/20/2007 at 4:45 PM to 8/27/2007 at 2:00 PM

Date	Garage	Rueth & Pine	Water Plant	Sewer Plant	48-hour	72-hour	4-day	7-day	10-day
8/14/2007	0.37	0.38	0.44	0.39					
8/15/2007	1.89	1.86	2.34	2.08	2.44				
8/16/2007	0.00	0.00	0.00	0.00	2.04	2.44			
8/17/2007	0.00	0.00	0.00	0.00	0.00	2.04	2.44		
8/18/2007	0.45	0.57	0.54	0.21	0.44	0.44	2.49		
8/19/2007	3.05	2.55	3.30	2.20	3.22	3.22	3.22		
8/20/2007	0.56	0.66	0.60	0.77	3.42	3.87	3.87	6.30	
8/21/2007	0.04	0.03	0.03	0.04	0.68	3.46	3.90	5.94	
8/22/2007	1.50	1.83	1.94	1.73	1.79	2.43	5.21	5.65	
8/23/2007	2.28	2.17	2.36	1.75	3.89	3.93	4.57	7.79	10.23
8/24/2007	0.00	0.00	0.00	0.00	2.14	3.89	3.93	7.79	9.83
8/25/2007	0.34	0.32	0.36	0.42	0.36	2.50	4.25	7.71	8.15
8/26/2007	0.00	0.00	0.00	0.00	0.36	0.36	2.50	4.93	8.15
8/27/2007	0.00	0.00	0.00	0.00	0.00	0.36	0.36	4.29	8.15

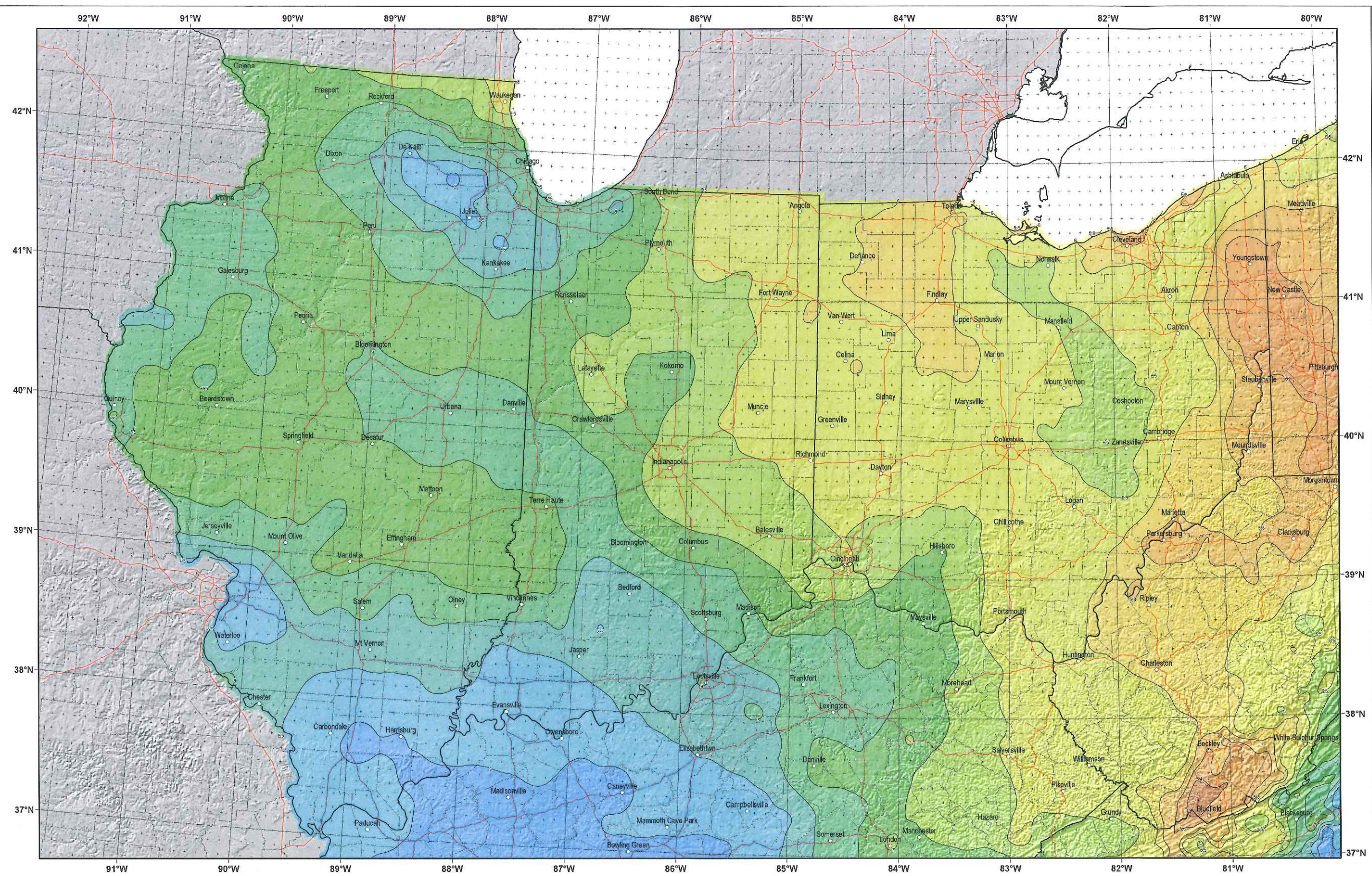
	24-hour	48-hour	72-hour	4-day	7-day	10-day
Max	3.30	3.89	3.93	5.21	7.79	10.23
Freq.	3.68	4.03	3.45	9.35	50.60	141.91

9/13/2008 Event: 59.4 MG Pumped to Swamp

Pumping from 9/13/2008 to 9/23/2008 at 12:00 AM

Date	Garage	Rueth & Pine	Water Plant	Sewer Plant	48-hour	72-hour	4-day	7-day	10-day
9/4/2008	3.57	3.87	3.68	3.61					
9/5/2008	0.00	0.00	0.00	0.00	3.68				
9/6/2008	0.09	0.10	0.09	0.09	0.09	3.78			
9/7/2008	0.00	0.00	0.00	0.00	0.09	0.09	3.78		
9/8/2008	1.05	1.46	1.29	1.55	1.34	1.43	1.43		
9/9/2008	0.00	0.00	0.00	0.00	1.34	1.34	1.43	5.11	
9/10/2008	0.00	0.00	0.00	0.00	0.00	1.34	1.50	1.59	
9/11/2008	0.15	0.19	0.17	0.13	0.16	0.16	4.31	5.74	
9/12/2008	4.05	4.00	4.55	4.00	4.31	4.31	6.71	8.04	11.82
9/13/2008	2.65	2.40	2.25	2.28	6.55	6.71	9.50	10.84	10.93
9/14/2008	2.92	2.76	2.85	2.65	5.19	9.34			

	24-hour	48-hour	72-hour	4-day	7-day	10-day
Max	4.55	6.55	9.34	9.50	10.84	11.82
Freq.	13.33	43.46	313.87	325.00	596.65	412.23



NOAA Atlas 14, Volume 2, Version 3
Ohio River Basin and Surrounding States

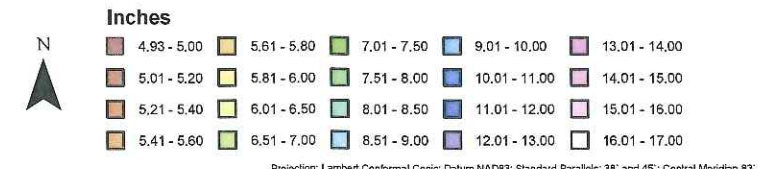
Prepared by U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
OFFICE OF HYDROLOGIC DEVELOPMENT
HYDROMETEOROLOGICAL DESIGN STUDIES CENTER
August 2006

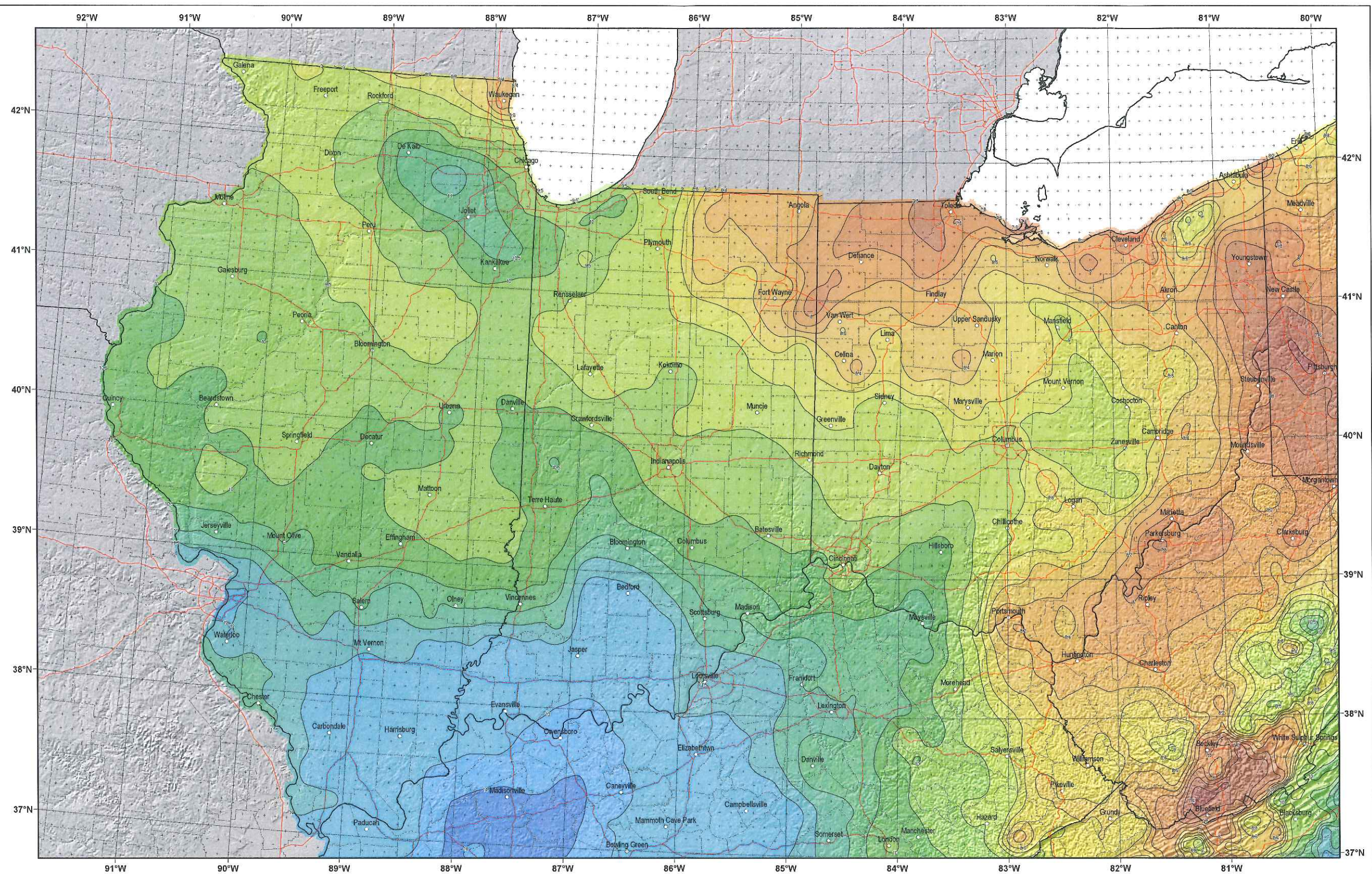
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0 10 20 30 40 50 Miles
0 10 20 30 40 50 60 70 Kilometers

ILLINOIS, INDIANA, OHIO

Isopluvials of 48 hour precipitation (inches)
with Average Recurrence Interval of 100 years

See NOAA Atlas 14 documentation for factors to convert to Annual
Exceedance Probabilities for all estimates below 25 years





NOAA Atlas 14, Volume 2, Version 3
Ohio River Basin and Surrounding States

Prepared by U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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HYDROMETEOROLOGICAL DESIGN STUDIES CENTER
August 2006

SCALE 1:2,000,000 (when printed/viewed at ANSI C size)
0 10 20 30 40 50 Miles
0 5 10 20 30 40 50 60 70 Kilometers

ILLINOIS, INDIANA, OHIO

Isopluvials of 10 day precipitation (inches)
with Average Recurrence Interval of 100 years

See NOAA Atlas 14 documentation for factors to convert to Annual
Exceedance Probabilities for all estimates below 25 years



ATTACHMENT C

**PHOTOGRAPHS OF PROPOSED SITE
FOR
EQUALIZATION BASIN EXPANSION
AND
FUTURE WASTEWATER TREATMENT PLANT**

**TOWN OF GRIFFITH
PHOTOGRAPHS OF PROPOSED SITE FOR EQUALIZATION BASIN
AND WASTEWATER TREATMENT PLANT – 7/12/12**



From Access Road – Looking Northwest at Existing Pump Station and Basin



From Access Road – Looking West at Existing Equalization Basin

**TOWN OF GRIFFITH
PHOTOGRAPHS OF PROPOSED SITE FOR EQUALIZATION BASIN
AND WASTEWATER TREATMENT PLANT – 7/12/12**



From Access Road – Looking South from Just East of Existing Basin



Looking Southeast from South Side of Existing Pump Station

**TOWN OF GRIFFITH
PHOTOGRAPHS OF PROPOSED SITE FOR EQUALIZATION BASIN
AND WASTEWATER TREATMENT PLANT – 8/8/12**



Looking Northeast from Cline Avenue at Existing Basin

ATTACHMENT D

MALCOLM PIRNIE REPORT
ON
WASTEWATER TREATMENT PLANT
FOR
TOWN OF GRIFFITH

MEMO

To:
Dennis Zebell, Lawson-Fisher Associates
Randy Lindley, Lawson-Fisher Associates

Copies:

From:
Amy Smitley, Malcolm Pirnie|ARCADIS
Guy Jamesson, Malcolm Pirnie|ARCADIS

Date:
July 30, 2012

ARCADIS Project No.:
40509001.0000

Subject:
Town of Griffith, Indiana
Proposed Wastewater Treatment Plant
Conceptual Planning

Purpose

The purpose of this memorandum is to provide Lawson-Fisher Associates P.C. (LFA) and ultimately the Town of Griffith, Indiana with preliminary capacity, cost and schedule information regarding the feasibility of a new wastewater treatment plant for the Town of Griffith only. This memorandum will be used to amend the *Griffith/Highland, Indiana Proposed Wastewater Treatment Plant Conceptual Planning Report* (Griffith/Highland Report) dated March 2012.

Plant Capacity

The following describes the average and peak flows proposed for the new Griffith wastewater treatment plant and the plan to handle flows in excess of the plant's proposed capacity.

Average Flow. Based on the flow data presented in the Griffith/Highland Report, the preliminary planning for a Griffith wastewater treatment plant will be for an average design flow rate of 3.5 MGD. This provides approximately 25 percent additional capacity above the average flow rate (2.75 MGD) experienced from 2006 to 2011. (Note that 2009 experienced the highest peak flows of approximately 3.04 mgd, leaving only 15 percent additional capacity.) Though the Town is mostly developed, this provides reserve capacity for additional population growth, septic tank conversion, and commercial and industrial growth. Griffith anticipates about 500 homes in annexed areas or with failing septic tanks will be added to their district. IDEM requires at least 10 percent reserve capacity for new wastewater treatment plants, which would be achieved even with the addition of 500 homes to the historic average annual flow.

Peak Flow. The plant will be designed for a peak flow of 10.0 MGD. This provides a peaking factor of approximately 2.9. Typically, peak hourly flows to handle diurnal fluctuations for populations this size result in a peaking factor of about 2.5. Because of the known high flows in the Towns' system, the peaking factor was increased to the most that can be expected from the biological system.

Excess Flows. Flows greater than the proposed treatment plant peak flow will need to be handled by Griffith's existing and proposed equalization basins, which provide temporary storage of excess flow until influent flow rates have decreased back to levels below the treatment plant capacity. Flow equalization provides attenuation of flow rate peaks so that extreme fluctuations in flow rate can be reduced. The wastewater temporarily stored in equalization basins will be subsequently released to the treatment plant when influent flows have decreased.

Planning Basis for Treatment Plant

The same process units proposed for the Griffith/Highland wastewater treatment plant are assumed to be necessary for a separate Griffith plant:

- Influent pumping
- Screening and grit removal
- Extended aeration activated sludge aeration tanks, with anaerobic selector zones for biological phosphorus removal
- Final clarifiers and return sludge pumping
- Chemical feed system for phosphorus removal (trimming)
- UV disinfection
- Waste sludge thickening and dewatering

Preliminary Treatment Plant Costs

Capital Costs. At this conceptual planning level, costs are based upon experience with similar plants, of similar size, facing similar issues. **Table 1** is a summary of construction bid costs gathered from new wastewater treatment plants. The average construction cost is approximately \$12 per gallon of wastewater treated. An average cost of \$14 per gallon is extrapolated for smaller plant sizes; the higher cost is representative of the reduced economy of scale. The Sanitation District No. 1 Eastern Regional wastewater treatment plant size and facilities provided are reasonably comparable to the facilities proposed for the new Griffith wastewater treatment plant at \$10 per gallon, and this unit cost may represent the low end of the construction cost range for a Griffith plant.

Table 1: New Wastewater Treatment Plant Construction Cost Comparison

Facility Location	Size (MGD)	Bid Month-Year	Bid \$	Current \$	Current \$/gal	Average Cost \$/gal	
Jewett City, CT	1.1	February-02	\$13,800,000	\$19,700,000	\$17.91	\$14.20	\$12.08
Lee, MA	1.25	May-06	\$18,700,000	\$22,400,000	\$17.92		
Delaware County, OH (Lower Scioto WRF)	1.4	December-07	\$22,000,000	\$25,100,000	\$17.93		
New Castle, DE	1.6	July-06	\$17,700,000	\$21,100,000	\$13.19		
Lancaster, OH	2	October-08	\$35,900,000	\$38,300,000	\$19.15		
Moorestfield, VA	3.5	November-06	\$28,100,000	\$32,700,000	\$ 9.34		
SD1 Eastern Regional, KY	4	February-05	\$32,000,000	\$40,400,000	\$10.10		
Greene County, OH (Sugar Creek)	5.1	September-06	\$34,000,000	\$40,300,000	\$7.90		
Marysville, OH	8	July-06	\$74,100,000	\$88,300,000	\$11.04		
Richmond, KY	8	January-08	\$31,500,000	\$35,900,000	\$4.49		
Mason, OH	8.67	January-03	\$32,000,000	\$44,800,000	\$5.17		
Fulton Co, GA	15	July-06	\$137,000,000	\$163,300,000	\$10.89		

A construction cost range of \$10 to \$14 per gallon of average treatment capacity is estimated for the proposed Griffith wastewater treatment plant. In addition to the construction costs, project costs are estimated to represent approximately 32 percent of the construction cost. **Table 2** summarizes the conceptual planning costs for the new wastewater treatment plant. The preliminary total capital cost range for a new plant is approximately \$47 to \$65 million dollars.

Table 2: Conceptual Planning Capital Cost

Cost Description	Cost Range		% of
Construction Cost per Gallon	\$10	\$14	--
Total Construction Cost	\$35,000,000	\$49,000,000	100.0%
Real Estate Costs	\$350,000	\$490,000	1.0%
Administration Costs	\$525,000	\$735,000	1.5%
Miscellaneous (permits, geotech, etc.)	\$175,000	\$245,000	0.5%
Design and Engineering Services	\$3,500,000	\$4,900,000	10.0%
Construction Interest	\$1,400,000	\$1,960,000	4.0%
Project Contingency	\$1,750,000	\$2,450,000	5.0%
Field Engineering and Inspection	\$1,400,000	\$1,960,000	4.0%
Construction Administration	\$2,100,000	\$2,940,000	6.0%
Total Capital Cost	\$47,000,000	\$65,000,000	132.0%
Capital Cost per Gallon	\$13	\$19	

O&M Costs. As with construction capital costs, at this conceptual planning level, operation and maintenance costs for a potential Griffith treatment plant are based upon experience from plants in operation. O&M costs were gathered from several facilities (including three Indiana facilities) ranging in size from small to large wastewater treatment plants. An O&M cost range of \$2.00 to \$2.50 per thousand gallons treated is estimated for the proposed Griffith wastewater treatment plant. The preliminary estimate of annual O&M cost range for the potential new plant is approximately \$2.6 to \$3.2 million dollars.

Allocated Costs and Projected Revenue Requirements

To assist the Town in comparing costs associated with constructing a new Griffith wastewater treatment plant, a preliminary analysis of the impact on revenue was performed. A summary of the annual revenues, expenditures, and HSD charges over recent years for Griffith associated with their current practice of discharging their wastewater to HSD was included in the Griffith/Highland Report. This information, costs presented in this memorandum, and costs gathered from others as described below were utilized to determine the projected increase in revenue requirements for each alternative.

The potential new wastewater treatment plant, which is the focus of this memorandum, includes the costs associated with a new plant only, and does *not* include an equalization basin to resolve SSOs beyond what the plant can handle. **Table 3** is a summary of the probable total annual WWTP cost, presented over a cost range at this planning level, associated with a new wastewater treatment plant. This includes the projected annual loan payment for the capital required, assuming a low-interest loan (combination of

State Revolving Fund (SRF) loan and other sources) can be obtained, and the annual operation and maintenance costs utilizing the costs presented in this memorandum.

Table 3. Plant Cost Estimates

Description	Low Estimate	High Estimate
Proposed WWTP Cost Range	\$47,000,000	\$65,000,000
Interest Rate ¹	3.04%	3.79%
Loan Period	20	20
Projected Annual Loan Payment	\$3,200,000	\$4,700,000
Annual O&M Factor (\$/MG)	2.00	2.50
Annual O&M Cost Range	\$2,600,000	\$3,200,000
Total Annual WWTP Cost	\$5,800,000	\$7,900,000

¹ If an SRF loan is pursued, rates are based on Median Household Income (MHI) for the service area and average residential bills. Griffith's MHI, as listed by Census.gov, places them as Tier I class borrowers. The interest rates listed are higher than current SRF loan rates since it is anticipated that a combination of an SRF loan and other sources will be used.

Table 4 allocates the costs and presents the projected increase in revenue requirements for a new plant. The low estimate for Griffith requires a 235% increase in revenue and the high estimate requires a 345% increase. Note that additional revenue will be needed for the equalization basin required to address any remaining SSOs beyond what the new plant can handle. This projected revenue requirement increase for a wastewater treatment plant provided to serve only the Town of Griffith is higher than the projected revenue requirement increase for a joint plant to serve the Towns of Griffith and Highland as presented in the prior Griffith/Highland Report.

Table 4. Allocated Costs and Revenue Requirements

Item	Cost
Low WWTP Cost Estimate	\$5,800,000
Bond Coverage ¹	\$1,450,000
Annual Expenditures	\$2,253,044
Less: HSD Treatment Costs	(\$1,255,703)
Projected Revenue Requirements	\$8,200,000
Projected Increase in Revenue Requirements²	235%
High WWTP Cost Estimate	\$7,900,000
Bond Coverage ¹	\$1,975,000
Annual Expenditures	\$2,253,044
Less: HSD Treatment Costs	(\$1,255,703)
Projected Revenue Requirements	\$10,900,000
Projected Increase in Revenue Requirements²	345%

¹ Calculated as 25% of the WWTP cost estimate. This is a requirement of the lender.

² Revenue impact does not include additional costs associated with equalization needed to eliminate SSOs for the Town.

Anticipated Schedule

The following is a project schedule intended to guide the community through the entire process to enable them to determine when they need to act on the wastewater treatment plant option, if desired. It is anticipated that the process will take approximately 62 months, or 5.2 years. Griffith's contract with HSD for treatment expires December 31, 2018, in approximately 6.5 years.

Table 5. Anticipated WWTP Schedule

Item	Length (months)
Mercury sampling	4
Waste load allocation and antidegradation	} 6
Geological and environmental investigations	
Property acquisition ¹	--
NPDES permit	} 6
Planning and preliminary design	
Detailed design	12
Construction permit	6
Bidding	2
Contract award	2
Construction	24
Total Months	62
Total Years	5.2

¹ Property can be acquired upon IDEM acceptance and simultaneous with other investigations and design. Proposed site is Griffith golf course no longer in operation and currently up for sale.